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Examining calling as a double-edged sword for employability

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ABSTRACT

Using a two-study design (total $N = 1232$), this paper examines the relationship between calling and employability. We suggest that, on the one hand, calling can positively relate to employability due to individuals' engagement in proactive professional development (PPD). On the other hand, calling can negatively relate to employability due to the career inflexibility that is associated with having a calling. The results of Study 1 revealed that calling does not directly relate to employability. When accounting for PPD in the calling-employability relationship, we found that calling positively and indirectly relates to occupational expertise dimension of employability, while it relates negatively and directly to personal flexibility dimension of employability. Findings from Study 2 showed that calling indirectly relates to employability both positively through PPD and negatively through career inflexibility. The findings from the two studies suggest the double-edged nature of a calling in relation to employability. The importance of these findings for understanding the career-related outcomes of calling is discussed.

1. Introduction

Over the past decade, both scholars and practitioners have shown a growing interest in understanding work as a calling, that is purposeful, meaningful, and passion-driven engagement in a career that one feels drawn to pursue (Bunderson & Thompson, 2009; Dik & Duffy, 2009; Dobrow & Tosti-Kharas, 2011; Elangovan, Pinder, & McLean, 2010; Hall & Chandler, 2005). Calling has been linked to greater career satisfaction (e.g., Dobrow & Tosti-Kharas, 2011), career commitment (e.g., Duffy, Dik, & Steger, 2011), career planning (e.g., Hirschi & Hermann, 2013), and career adaptability (Douglass & Duffy, 2015; Xie, Xia, Xin, & Zhou, 2016). However, little attention has been paid to understanding how calling relates to employability, which is the ability to obtain and retain a job (Fugate, Kinicki, & Ashforth, 2004; Van der Heijde & Van der Heijden, 2006). This is surprising, given high unemployment rates and the low job security provided by organizations (Waters, Briscoe, Hall, & Wang, 2014), which limits possibilities for individuals to pursue a purposeful career. Therefore, examining the relationship between calling and employability is both timely and necessary if we are to understand the likelihood of individuals with a calling to secure jobs that align with their calling in these uncertain economic times.

The sparse research to date that has addressed the relationship between calling and employability reports conflicting findings. In particular, studies among young adults show that calling is associated with greater employability (Praskova, Creed, & Hood, 2015a) and accounts for a stronger positive relationship between career preparation and employability (Praskova, Creed, & Hood, 2015b). This line of reasoning is supported by Hall and Chandler's (2005) calling theory of career success, as well as by prior empirical research that shows calling to be associated with important antecedents of employability, such as identity clarity and self-efficacy (e.g., Dobrow & Tosti-Kharas, 2011; Fugate et al., 2004; Hirschi, 2012). In contrast, several scholars have implied a potentially

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negative relationship between calling and employability. For instance, Fraher and Gabriel (2014) reported that pilots with a calling struggle with pursuing employment opportunities in domains other than their calling. Similarly, Dobrow and Tosti-Kharas (2012) and Cardador and Caza (2012) identified the "unhealthy" pursuit of a calling, which is exhibited by work identity inflexibility and unwillingness to listen to discouraging career-related advice from trusted mentors. Other scholars have also suggested that calling may undermine the attainment of competencies and expertise that are outside the calling domain (Berkelaar & Buzzanell, 2015; Newport, 2012) but that are necessary for employability (Arthur, Khapova, & Richardson, 2017; Fugate et al., 2004; Van der Heijde & Van der Heijden, 2006). While these studies suggest that calling could have a negative relationship with employability, to our knowledge, this assumption has not been tested before nor is there research that empirically examines how this negative relationship may be in place.

This paper examines how calling relates to employability and addresses the previous conflicting findings with regard to this relationship. Similar to previous studies (e.g., Duffy, Douglass, Autin, & Allan, 2014; Praskova et al., 2015a), we use Hall and Chandler's (2005) calling theory of career success and the literature on self-regulation (Lord, Diefendorff, Schmidt, & Hall, 2010; Wrosch, Scheier, Miller, Schulz, & Carver, 2003) as a theoretical basis for our hypotheses. We examine how calling relates to employability in two studies. First, we argue that viewing one's career as a calling should positively relate to employability, especially because of individuals' engagement in proactive professional development (Hall & Chandler, 2005; Van der Heijde & Van der Heijden, 2006). We test this assumption in both studies. Next, we suggest that calling may also negatively relate to employability due to the career inflexibility (i.e., lack of openness to alternative career considerations and job changes) associated with it (Cardador & Caza, 2012; Porfeli, Lee, Vondracek, & Weigold, 2011; Wrosch et al., 2003). We test this assumption in Study 2.

This paper makes the following important contributions to the literature. First, by examining the relationship between calling and employability, we contribute to research on career-related outcomes of calling (e.g., Duffy & Dik, 2013; Hirschi, 2011) and employability (Praskova et al., 2015a, 2015b). We show that calling relates indirectly to employability through proactive professional development (PPD) on the one hand and career inflexibility on the other hand. By focusing on the mediating effect of PPD in the calling-employability relationship, this paper addresses the need for a better understanding of how calling relates to career-related behavioral outcomes (Duffy & Dik, 2013; Elangovan et al., 2010). By focusing on the mediating effect of career inflexibility in the calling-employability relationship, this paper provides an additional empirical examination of the argument that individuals with a calling may have a rigid view of their careers (Cardador & Caza, 2012; Dobrow & Tosti-Kharas, 2012; Fraher & Gabriel, 2014).

Second, by showing that calling can relate to employability both positively (through PPD) and negatively (through career inflexibility), we extend research that acknowledges a "dark side" of calling (e.g., Berg, Grant, & Johnson, 2010; Dobrow & Tosti-Kharas, 2012; Duffy, Douglass, Autin, England, & Dik, 2016; Gazica & Spector, 2015) and contribute to the limited research that explicitly points at the double-edged nature of a calling (e.g., Berkelaar & Buzzanell, 2015; Bunderson & Thompson, 2009). In so doing, our findings address Duffy and Dik's (2013) call for research that acknowledges the "dark sides" of calling.

Fig. 1 depicts the overall hypothesized model and explains the two-study structure of the paper.

2. Experiencing work as a calling

Following leading definitions of calling, we suggest that calling constitutes meaningful and/or purposeful engagement in a (work) domain, job, or profession that originates from external summons (Dik & Duffy, 2009), a sense of duty or destiny (Bunderson & Thompson, 2009), or identity (Dobrow & Tosti-Kharas, 2011). Calling is also often pro-social in nature, meaning that viewing one's career as a calling includes a desire to make the world a better place (Bunderson & Thompson, 2009; Dik & Duffy, 2009; Elangovan

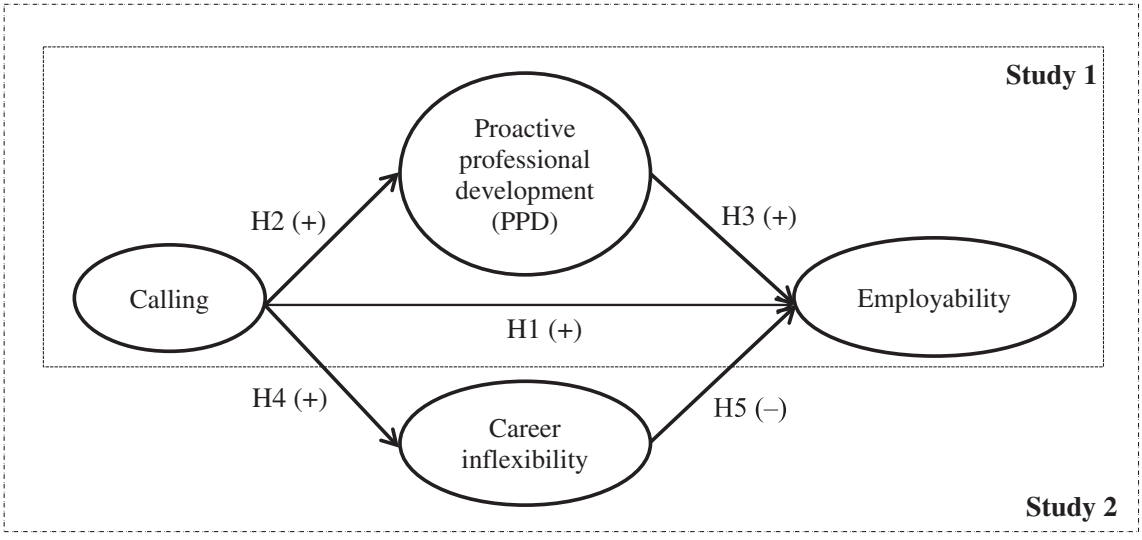

Fig. 1. Hypothesized model.

et al., 2010). In their conceptual work, scholars note that individuals with a calling are likely to take a more proactive approach toward their work lives and careers because a calling suggests "a call to action" and enables proactive engagement in the goal-setting process (Elangovan et al., 2010, p. 429; Hall & Chandler, 2005). However, little empirical research has attempted to test this theoretical assumption (e.g., Hirschi, 2011). This lack of research is surprising, given the importance of engaging in proactive career behaviors (i.e., proactively engaging in learning and development) for individuals' adaptation to the current insecure work environment (De Vos, De Hauw, & Van der Heijden, 2011; Inkson & King, 2010).

3. Calling and employability

Employability, or the ability to obtain and retain a job either in the current organization (i.e., internal employability) or with a different employer (i.e., external employability), is considered an important indicator of career success (Fugate et al., 2004; Van der Heijde & Van der Heijden, 2006; Vanhercke, De Cuyper, Peeters, & De Witte, 2014). Whereas scholars agree on this general understanding of the employability concept, they theorize and operationalize employability in diverse ways (De Cuyper, Raeder, Van der Heijden, & Wittekind, 2012). For example, several scholars have approached employability as a set of competencies that enable individuals to acquire and maintain a job (i.e., competence-based employability) (Van der Heijde & Van der Heijden, 2006). In turn, others have focused on employability as individuals' self-perception of their ability to obtain and retain a job (i.e., perceived employability) (e.g., Vanhercke et al., 2014).

While the importance of employability has never been as high as it is currently due to the challenging economic situation and high job insecurity (Waters et al., 2014), very few studies have addressed the relationship between calling and employability (Praskova et al., 2015a, 2015b). These studies found that viewing one's career as a calling is associated with the person's employability. In their study of young adults, Praskova et al. (2015a) drew on a goal-setting perspective (Locke & Latham, 1990) to argue that young adults with a career calling display stronger beliefs about their future employability because they have higher goals associated with greater self-confidence and expectations about their performance.

Arguments for the positive relationship between calling and employability are also provided by Hall and Chandler (2005), who note that individuals with a calling exert greater effort and are focused on reaching desired valued goals because a calling provides individuals with enhanced "meta-competencies": self-awareness and adaptability. These meta-competencies help individuals navigate toward a sense of psychological success (Hall & Chandler, 2005). The enhanced self-awareness (i.e., clarity about who they are) of individuals with a calling enables them to reflect on their self-concept to set meaningful goals, whereas enhanced adaptability (i.e., the capacity to change to meet situational demands) enables them to focus their effort and pursue their goals, even in the face of contextual difficulties (Hall & Chandler, 2005). Indeed, prior studies have suggested that calling is associated with greater identity clarity, career self-efficacy (e.g., Hirschi, 2012; Hirschi & Hermann, 2013; Dobrow & Tosti-Kharas, 2011), and career adaptability (Douglass & Duffy, 2015; Xie et al., 2016), which are seen as important precursors for employability (Fugate et al., 2004; Van der Heijde & Van der Heijden, 2006; Vanhercke et al., 2014). Thus, we propose that there will be a positive association between calling and employability:

Hypothesis 1. Calling is positively associated with employability.

3.1. The mediating effect of proactive professional development

To be successful and employable in today's insecure and unstable work environment, individuals need to take more ownership of their careers (Arthur et al., 2017). We suggest that engaging in PPD, which we define as a self-driven engagement in work and profession-related learning and developmental activities, can be seen as a manifestation of individuals taking initiative in managing their careers. We suggest that the high self-awareness and high adaptability that a calling provides, enables individuals to engage in PPD (Hall & Chandler, 2005). In particular, high self-awareness enables individuals to spot a potential gap between their current and desired skills and competencies needed for the attainment of their calling-related goals. In turn, high adaptability enables them to engage in the actions that are necessary to acquire their desired skills and competencies (Hall & Chandler, 2005).

Individuals with a calling are not only likely to have the ability to engage in PPD, they are also likely to be motivated to engage in PPD. These individuals would regard PPD as a meaningful career-related activity because it is associated with their valuable career goals (i.e., a calling) (Fugate et al., 2004; Praskova et al., 2015a). In their conceptual work, Elangovan et al. (2010) further support the assumption that viewing one's career as a calling helps individuals to take a proactive, rather than passive stance toward their career development. The authors propose that one of the defining elements of calling is an action orientation (i.e., "the emphasis is on *doing* instead of simply *being*") (Elangovan et al., 2010, p. 429). Indeed, research has shown that calling is an important predictor of proactive career planning (Hirschi & Hermann, 2013) and active engagement in personal development (Duffy et al., 2014). Thus, we expect that there will be a positive relationship between calling and PPD:

Hypothesis 2. Calling is positively associated with PPD.

We further propose that PPD is positively related to employability, resulting in an indirect relationship between calling and employability. Scholars have suggested that employability is dependent on continuous learning because – through the acquisition of knowledge, skills, and abilities – individuals can build the necessary competences (i.e., human capital) that enable them to obtain and retain a job (De Vos et al., 2011; Fugate et al., 2004; Van der Heijde & Van der Heijden, 2006). Indeed, prior research has shown that active engagement in different types of formal and informal development activities and competence development is associated with

greater employability (De Vos et al., 2011; Van der Heijden, Boon, Van der Klink, & Meijs, 2009; Wittekind, Raeder, & Grote, 2010). While this research supports the positive relationship between learning and development and employability, it is important to consider that in today's insecure and unstable work environment, this learning and development becomes an individual's responsibility, and individuals need to exert career agency in this respect (Arthur et al., 2017; Hall & Chandler, 2005).

Securing jobs that could enable calling pursuit (i.e., being employable to live out a calling) (Duffy, Bott, Allan, Torrey, & Dik, 2012) requires individuals to take a proactive approach toward their professional development. Thus, engagement in PPD is likely to positively relate to employability. Furthermore, PPD for individuals with a calling may be an important self-regulatory mechanism that supports the focus, dedication, and effort that these individuals exert toward attaining and maintaining their meaningful and desired goals (Hall & Chandler, 2005; Lord et al., 2010) and that, in turn, relates to positive career outcomes, such as employability (Praskova et al., 2015a). Therefore, we expect PPD to positively relate to employability and to mediate the relationship between calling and employability.

Hypothesis 3. PPD mediates the relationship between calling and employability.

4. Study 1

4.1. Method

4.1.1. Sample and procedures

We collected data from alumni of the economics faculty at a large public university in the Netherlands as part of a longitudinal study on career mobility, behavior, and outcomes. Overall, 7478 individuals were invited by email to take part in an online survey. A total of 1248 individuals started completing the online questionnaire (*response rate* = 16.69%). The final sample (N = 582) does not include those respondents who a) did not respond to any of the items of the core study variables; b) were not employed, because the study measures used were applicable only to working respondents; or c) were self-employed, because self-employed individuals tend to have more flexibility and autonomy in shaping their career futures and greater skill utilization than non-self-employed individuals (Hundley, 2001), which might account for differences in their employability.

Our final sample consisted of participants who, because of their business-related education, were employed in different commercial occupational fields. Some of the most frequently encountered fields were facility services (12.9%), fast-moving consumer goods (10.5%), construction and property (10.3%), telecommunication (10.1%), and legal services (6.5%). The participants were 35.06 years old on average (SD = 8.95), and 63.8% were male. On average, the participants were employed within their current organization for 4.8 years (SD = 6.39). Given the lack of significant differences found by prior research (Rothwell, Jewell, & Hardie, 2009) on employability as perceived by individuals across ethnic groups, the race and ethnicity of respondents were not assessed.

4.1.2. Measures

All of the items use 5-point Likert scales with response categories ranging from 1 (*completely disagree*) to 5 (*completely agree*).

4.1.2.1. Calling. We measured calling using seven items adopted from a twelve-item calling scale developed by Dobrow and Tosti-Kharas (2011). A sample item was “I am passionate about being in my profession”. Given that the original scale focuses on a calling in a specific domain (e.g., music), we selected only those seven items that were easy to adapt to include the word “profession” to make the items applicable to all respondents in our diverse occupational group. Prior research has supported the appropriateness of using shorter versions of the calling scale (e.g., a four-item version of the scale) (Clinton, Conway, & Sturges, 2017). The calling measure was found to positively correlate to other calling measures, intrinsic motivation, and career-related self-efficacy, among other variables (Dobrow & Tosti-Kharas, 2011). Previous research using the original calling measure has reported that it had a one-factor structure with a reliability of 0.88 for a sample of musicians (Dobrow & Tosti-Kharas, 2012). However, the results of our confirmatory factor analysis (CFA) showed that the one-factor model did not fit the data well (χ^2 = 192.859, df = 14, $p < 0.001$, comparative fit index [CFI] = 0.91, Tucker-Lewis index [TLI] = 0.87, root-mean-square-error of approximation [RMSEA] = 0.15, standardized root mean-square residual [SRMR] = 0.06) (Browne & Cudeck, 1993; Hu & Bentler, 1999; Kline, 2016). The modification indices suggested that three items share common variance. These all seemed to capture what we denote as “the ultimate choice” dimension of calling, which is consistent with previous research arguing that calling signifies an ultimate profession that one feels drawn to pursue (e.g., Bunderson & Thompson, 2009). The other items seemed to capture a “meaningful passion” dimension of calling reflecting individuals' deep satisfaction with their profession (e.g., Dobrow & Tosti-Kharas, 2011). Thus, we proceeded with testing a hierarchical factor model with calling as the second-order latent variable and meaningful passion and ultimate choice as the first-order latent variables. The hierarchical factor solution for the calling measure showed the best fit to the data (χ^2 = 48.25, df = 13, $p < 0.001$, CFI = 0.98, TLI = 0.97, RMSEA = 0.07, SRMR = 0.03), with significant loadings (range λ = 0.71–0.85, $p < 0.001$). The Cronbach's alpha for the scale was 0.89.

4.1.2.2. Employability. Employability was measured using six items adopted from Van der Heijde and Van der Heijden's (2006) employability scale. In line with previous operationalizations (e.g., Fugate et al., 2004), we only measured the two most important dimensions of employability, namely, occupational expertise and personal flexibility. Expertise was assessed using three items from the “occupational expertise” subscale. A sample item was “During the past year, I was, in general, competent to take prompt decisions with respect to my approach to work”. We adopted those three items that captured perceived competence as based on past

experience. Flexibility was assessed using three items from the "personal flexibility" subscale. A sample item was "I can easily adapt to changes in my workplace". We adopted those three items that were concerned with individuals' ability to change organizations and adapt to changes in organizations. The study of De Vos et al. (2011) showed the appropriateness of using shorter versions of occupational expertise (i.e., eight out of the original thirteen items) and personal flexibility (i.e., three out of the original eight items). The results of our CFA confirmed that the two-factor solution for our six-item employability measure ($\chi^2 = 17.68$, $df = 8$, $p < 0.05$, CFI = 0.99, TLI = 0.98, RMSEA = 0.05, SRMR = 0.03) fit the data significantly better than a one-factor solution ($\Delta\chi^2 = 292.17$, $df = 1$, $p < 0.001$). The Cronbach's alphas for our scales of occupational expertise and personal flexibility were 0.75 and 0.74, respectively.

4.1.2.3. PPD. We measured PPD by asking the participants to respond to three items from the five-item increasing structural job resources dimension of the Job Crafting Scale (JCS; Tims, Bakker, & Derks, 2012). We used the following three items since they captured proactive engagement in work-related learning and development: "I try to develop myself professionally", "I try to learn new things at work", and "I try to develop my capabilities". Prior research has shown that the original five-item measure of the job crafting dimension can be used as a scale on its own and that the three items that we used to measure PPD were also found to have the highest factor loadings (e.g., Tims et al., 2012; Tims, Bakker, & Derks, 2013). The Cronbach's alpha for our three-item PPD scale was 0.78.

4.1.3. Analytical strategy

To test our hypotheses, we used structural equation modeling (SEM) with the AMOS software package (Arbuckle, 2005). Given the multivariate non-normality of our data, all reported parameter estimates were tested with 95% bias-corrected confidence intervals obtained from 5000 bootstrapped samples (Nevitt & Hancock, 2001). According to Kline (2016), bootstrapping estimates can be recommended as a good alternative to robust maximum likelihood estimation for non-normally distributed data.

Prior to testing the hypotheses, we performed a series of CFAs to establish the discriminant validity of the constructs in our model. We used a chi-square difference test to compare different nested measurement models. Next, we tested the model that best fit the data. Following guidelines for mediation models (James, Mulaik, & Brett, 2006; Mathieu & Taylor, 2006), we compared the proposed fully mediated model with alternative partial mediation models to determine the best model to examine the hypotheses.

4.2. Results

4.2.1. Measurement model

At first, the measurement model with six latent factors (calling as the second-order factor with meaningful passion and ultimate choice as the two first-order factors, PPD, occupational expertise and personal flexibility) suggested the presence of a negative error variance for the meaningful passion dimension of calling. Given that this was a very small error variance and that it was not significant ($e = -0.024$, $p = 0.761$), we concluded that the negative error variance was likely to be caused by sampling fluctuations rather than model misspecification, and that to remedy the situation it was appropriate to fix this error variance to zero (following suggestions by Chen, Bollen, Paxton, Curran, & Kirby, 2001). After fixing this negative error variance to zero, the fit of the measurement model was good ($\chi^2 = 227.70$, $df = 97$, $p < 0.001$; CFI = 0.97, TLI = 0.96, RMSEA = 0.05, SRMR = 0.05). Moreover, this model had a better fit than the model with three latent factors (calling, PPD, and employability) ($\chi^2 = 704.60$, $df = 101$, $p < 0.001$, CFI = 0.84, TLI = 0.81, RMSEA = 0.10, SRMR = 0.08; $\Delta\chi^2 = 476.90$, $df = 4$, $p < 0.001$) and with all variables loading on one latent factor ($\chi^2 = 1917.76$, $df = 104$, $p < 0.001$, CFI = 0.52, TLI = 0.44, RMSEA = 0.17, SRMR = 0.17; $\Delta\chi^2 = 1690.06$, $df = 7$, $p < 0.001$). All the items had significant loadings on the intended factors (range $\lambda = 0.55$–0.89, $p < 0.001$).

4.2.2. Descriptive statistics

Table 1 reports the means, standard deviations, and correlations for all variables used in this study. As seen in Table 1, calling positively relates to PPD ($r = 0.24$, $p < 0.01$). However, it does not correlate with occupational expertise ($r = 0.03$, $p = 0.425$) and personal flexibility ($r = -0.04$, $p = 0.400$).

Table 1
Means, standard deviations, and correlations for Study 1.

Variable	M	SD	1	2	3	4
1. Calling	3.31	0.74	(0.89)			
2. PPD	3.93	0.65	0.24**	(0.78)		
3. Occupational expertise	4.07	0.51	0.03	0.19**	(0.75)	
4. Personal flexibility	3.91	0.59	−0.04	0.35**	0.33**	(0.74)

Note. N = 582; Numbers in parentheses are reliability coefficients. PPD = proactive professional development.
** $p < 0.01$.

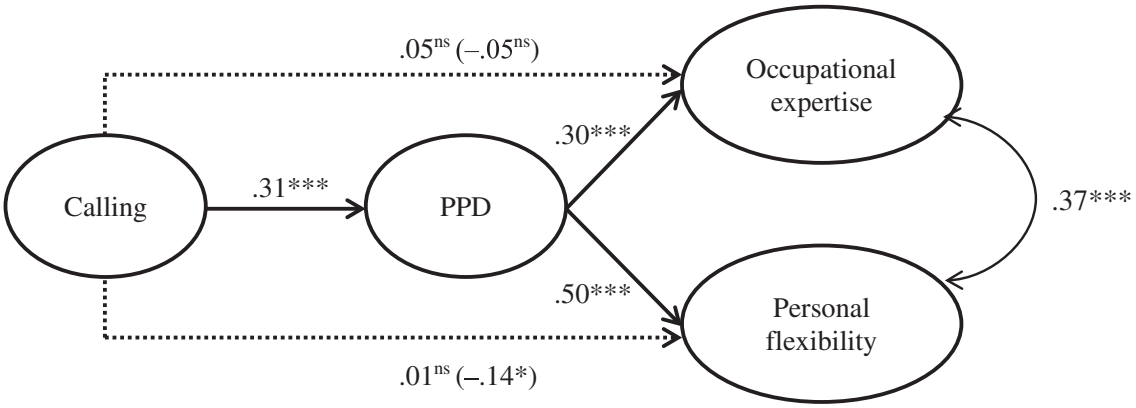

Fig. 2. Final mediation model for Study 1.
* $p < 0.05$; *** $p < 0.001$; ns = not significant. PPD = proactive professional development. All coefficients are standardized estimates. Numbers in brackets indicate the direct relationship between calling and occupational expertise and personal flexibility after accounting for PPD.

4.2.3. Hypothesis testing

We proposed that calling is positively associated with employability (Hypothesis 1) and PPD (Hypothesis 2). The SEM results revealed that calling was not significantly related to occupational expertise ($\gamma = 0.05$, $p = 0.380$) and personal flexibility ($\gamma = 0.01$, $p = 0.860$). However, calling was positively and significantly related to PPD ($\gamma = 0.31$, $p < 0.001$). Thus, Hypothesis 1 is rejected, while Hypothesis 2 is supported.

Turning to Hypothesis 3, we further tested the indirect relationship between calling and employability via PPD. First, we tested the fit of the fully mediated model. The results indicated that it had acceptable fit to the data ($\chi^2 = 235.42$, $df = 99$, $p < 0.001$, CFI = 0.96, TLI = 0.96, RMSEA = 0.05, SRMR = 0.05). We then compared this model to a partially mediated model (including a direct relationship between calling and occupational expertise and personal flexibility). The partial mediation model showed a better fit to the data than the fully mediated model ($\chi^2 = 227.70$, $df = 97$, $p < 0.001$; CFI = 0.97, TLI = 0.96, RMSEA = 0.05, SRMR = 0.05; $\Delta\chi^2 = 7.72$, $df = 2$, $p < 0.05$). Thus, we continued examining the hypotheses using this partially mediated model (see Fig. 2).

The SEM analysis of the partial mediation model showed that PPD was positively associated with occupational expertise ($\beta = 0.30$, $p < 0.001$) and personal flexibility ($\beta = 0.50$, $p < 0.001$), supporting that calling relates indirectly to employability through PPD. However, the nature of the indirect effect of calling differed for the occupational expertise and personal flexibility dimensions of employability. There was a full mediation effect of PPD in the relationship between calling and occupational expertise because the direct relationship between calling and occupational expertise was no longer significant when accounting for PPD ($\gamma = -0.05$, $p = 0.335$) (*indirect effect* = 0.09, $p < 0.001$, bootstrap 5000 samples, 95% CI [0.056; 0.142]). In contrast and to our surprise, accounting for PPD in the relationship between calling and personal flexibility transformed this relationship from being insignificant (Hypothesis 1) to being significant and negative ($\gamma = -0.14$, $p < 0.05$) (*indirect effect* = 0.16, $p < 0.001$, bootstrap 5000 samples, 95% CI [0.101; 0.223]). Thus, Hypothesis 3 was partially supported.

This unexpected finding appears to conflict with Hypothesis 1, which argued for the positive relationship between calling and employability. Taken together, the positive indirect relationship of calling with occupational expertise through PPD and the direct negative relationship between calling and personal flexibility when controlling for PPD suggest that either suppression or inconsistent mediation may have occurred (MacKinnon, Krull, & Lockwood, 2000; Mathieu & Taylor, 2006; Shrout & Bolger, 2002). That is, calling is likely to contain two sources of variance that reflect two opposing channels by which it relates to employability: through one channel, calling relates positively to employability via PPD, and through the other channel, calling relates negatively to employability once PPD is accounted for (MacKinnon et al., 2000).

4.3. Discussion of Study 1

The findings of Study 1 show that – contrary to our expectations – calling does not directly relate to employability. However, when we account for the mediating effect of PPD in the calling-employability relationship, calling shows its double-edged nature. On the one hand, calling positively relates to employability (i.e., occupational expertise dimension) through relating positively to PPD. On the other hand, calling negatively relates to employability (i.e., personal flexibility dimension) after accounting for PPD. This unexpected finding may signify the existence of potential additional mechanisms in the calling-employability relationship. In particular, the negative association between calling and personal flexibility suggests that individuals with a calling may actually be more rigid in regard to their career goals (Cardador & Caza, 2012; Dobrow & Tosti-Kharas, 2012). Being inflexible with regard to their careers may limit opportunities for individuals with a calling to build their employability (Fugate et al., 2004; Wrosch et al., 2003). Another potential explanation for this unexpected finding might lay in the nature of our sample, namely, highly educated business professionals. Viewing one's career as a calling by business professionals may be especially obstructive in their advancement-oriented career development and thus be more associated with lower personal flexibility. To account for these alternative explanations, we

conduct Study 2, examining the mediating effect of career inflexibility in the calling-employability relationship in a more educationally diverse sample.

5. Study 2

In the second study, we aimed to replicate the main findings and address important limitations of Study 1. In particular, although the competency-based operationalization of employability is one of the most frequently used ones in the literature, many scholars have argued for the importance of studying perceived employability because it focuses on the availability of jobs and job quality (Vanhercke et al., 2014). This operationalization of employability is more congruent with calling and PPD (they are also perceived by individuals). Furthermore, personal flexibility (measured in Study 1) is too closely related to career inflexibility, which we tested in Study 2, and thus may have created confounding results. Therefore, in Study 2, we measure perceived employability.

Utilization of the Dobrow and Tosti-Kharas' (2011) measure of calling indicated several challenges in achieving a one-factor first-order structure in the sample of highly educated business professionals. Thus, to further examine the double-edged nature of calling, in Study 2, we measured calling using the Brief Calling Scale (Dik, Eldridge, Steger, & Duffy, 2012), which was extensively validated in various studies using different samples (e.g., Duffy et al., 2012; Hirschi, 2011). Drawing on the self-regulatory literature (Wrosch et al., 2003) in Study 2, we test whether next to the positive relationship between viewing one's career as a calling and employability, there may be a negative relationship due to the career inflexibility associated with a calling. We also re-test Hypotheses 1–3 from Study 1 (see Fig. 1).

5.1. The mediating effect of career inflexibility

While viewing one's career as a calling provides individuals with valuable resources to reach their desired valued goals, it is important to consider that not all meaningful goals can be attained. With fewer employment opportunities available on the market, it may be extremely challenging for individuals to secure jobs that align with their calling. Thus, in these circumstances, individuals are required not only to proactively approach their careers (i.e., engage in PPD) but also to be flexible with respect to their careers to make sure they can abandon their unattainable goals and reengage their efforts in valued alternative goals (Wrosch et al., 2003). Adhering to unattainable goals is associated with experiences of failure and stagnation of progress toward goal attainment, resulting in reduced well-being and enhanced psychological distress (Carver & Scheier, 1990; Wrosch et al., 2003). However, to abandon unattainable goals, individuals need to be flexible in their career pursuits and have alternative goals available.

Prior research on calling suggests that viewing one's career as a calling may be associated with career inflexibility. Career flexibility refers to the extent to which individuals consider alternatives and are open to future changes in their career choice (Porfeli et al., 2011). Dobrow and Tosti-Kharas (2012) argued that calling restricts individuals to focus only on their ultimate career goal, leading to both premature foreclosure and “tunnel vision” concerning one's career. Because experiencing one's work as a calling appears to be closely connected to one's sense of self in the work domain (Pratt & Ashforth, 2003), a narrowly focused calling may make people rigid in how they view themselves at work (Cardador & Caza, 2012). Consequently, individuals with a strong calling may consider less alternative “positive (work) selves” and be limited in consistently re-evaluating and re-interpreting previous and new behavior with respect to these alternative selves (Markus & Nurius, 1986, p. 954). To illustrate, Fraher and Gabriel (2014, p. 94) showed that five of ten interviewed pilots found it difficult to cope with job loss and found themselves “stuck” or “entrapped” in the occupational identity linked to their calling, thus failing to abandon their unattainable career goals and to pursue alternatives. This example reflects what Cardador and Caza (2012, p. 340) called an “unhealthy pursuit of calling”. Based on the above, we hypothesize a positive association between calling and career inflexibility:

Hypothesis 4. Calling is positively associated with career inflexibility.

We further propose that calling may negatively relate to employability through career inflexibility. Due to high career inflexibility, individuals with a calling may not only fail to consider the need to develop alternative meaningful career goals but may also be unwilling to do so even when the situation demands this flexibility. Thus, they would be less adept in responding to situational demands and less able to sustain themselves both personally and professionally (Cardador & Caza, 2012). Individuals with a calling may be so focused on building expertise in a calling domain while downplaying the development of the more general competencies needed either to utilize a broad set of opportunities or to seek new or alternative employment (Berkelaar & Buzzanell, 2015; Newport, 2012). Previous research shows that career flexibility is a positive predictor of career adaptability resources (Negru-Subtirica, Pop, & Crocetti, 2015; Savickas & Porfeli, 2012), which are important for employability (Fugate et al., 2004). Furthermore, career inflexibility is likely to impede the openness of individuals with a calling to change jobs. Research suggests that the willingness to change jobs is a significant predictor of perceived employability (Van den Berg & Van der Velde, 2005; Wittekind et al., 2010) because it allows individuals to consider a broader spectrum of career opportunities. Thus, we expect career inflexibility to negatively relate to employability and to mediate the relationship between calling and employability.

Hypothesis 5. Career inflexibility mediates the relationship between calling and employability.

5.2. Method

5.2.1. Sample and procedures

To collect data for this study, we asked undergraduate students at a large public university in the Netherlands to distribute a link with our questionnaire to people in their networks (e.g., family, friends, etc.). Like in Study 1, it was important to have currently employed respondents because working individuals are likely to manifest their calling differently than students, and they probably find themselves living out their callings (Duffy et al., 2012; Praskova et al., 2015a).

Of the 655 participants who responded to the questionnaire, we retained only those who were currently employed. The final sample of 650 respondents consisted of 360 females (55.4%) and 290 males (44.6%). On average, participants were 35.14 years old (SD = 14.21) and had been employed within their current organizations for 7.57 years (SD = 9.11). Most of them had vocational education (29.4%), high school (26.3%) or university education (24.6%). The participants were employed in various occupational sectors, such as healthcare/social services (14.2%), financial services (10.3%), hospitality (10.2%), and education (8.5%). Similar to Study 1, race and ethnicity were not assessed.

5.2.2. Measures

All of the items use 5-point Likert scales with response categories ranging from 1 (*completely disagree*) to 5 (*completely agree*).

5.2.2.1. Calling. We measured calling using the Presence of Calling subscale from the Brief Calling Scale (Dik et al., 2012). The two items constituting the unidimensional scale were: "I have a calling to a particular kind of work" and "I have a good understanding of my calling as it applies to my career". Previous studies have shown the appropriateness of using this two-item scale to measure calling (e.g., Duffy et al., 2012), which was found to correlate moderately to highly with scores of other measures of calling (Dik et al., 2012). The Cronbach's alpha for this scale was 0.81.

5.2.2.2. Employability. We measured perceived employability with the three-item employability scale by Janssens, Sels, and Van den Brande (2003). The items reflect individually perceived job opportunities on the internal and/or external labor market. These items are "I am confident that I would find another job if I started searching", "It will be difficult for me to find new employment when leaving the organization (reverse-coded)", and "In case I am dismissed, I will immediately find a job of equal value." Prior research (e.g., Wittekind et al., 2010) found the reliability of the scale to be 0.80, 0.86 and 0.88 at different times, which is comparable to the Cronbach's alpha of 0.80 for this scale in our study.

5.2.2.3. PPD. We measured PPD in the same way as in Study 1. The Cronbach's alpha for the scale was 0.80.

5.2.2.4. Career inflexibility. Career inflexibility was assessed using four items from the five-item career commitment flexibility subscale of the Vocational Identity Status Assessment scale (VISA; Porfeli et al., 2011). We did not include the fifth original item – "I need to learn a lot more before I can make a career choice" – because it seemed to be less applicable to working adults who have already made career choices. Example items from the scale were "I will probably change my career goals" and "What I look for in a job will change in the future." To capture career inflexibility rather than flexibility, all the items were reverse coded. Given that an adapted version of the scale was used, a separated CFA of this one-factor measure was performed, which showed an acceptable fit to the data (χ^2 = 12.47, df = 2, p < 0.01; CFI = 0.99, TLI = 0.97, RMSEA = 0.09, SRMR = 0.02). Previous studies reported the high internal consistency of the original five-item scale (α = 0.81) (e.g., Porfeli et al., 2011), which is comparable to the Cronbach's alpha of 0.87 for the scale in our study.

5.2.3. Analytical strategy

Similar to Study 1, we used SEM to test our hypotheses and report bootstrapped parameter estimates, given the multivariate non-normality of our data (Kline, 2016; Nevitt & Hancock, 2001).

5.3. Results

5.3.1. Measurement model

The CFA results show that the model with four latent factors (calling, PPD, career inflexibility, and employability) had a good fit to the data (χ^2 = 98.71, df = 48, p < 0.001; CFI = 0.98, TLI = 0.98, RMSEA = 0.04, SRMR = 0.03). This model's fit was better than the fit of the model with all the variables loading on one latent factor (χ^2 = 1712.35, df = 54, p < 0.001, CFI = 0.47, TLI = 0.35, RMSEA = 0.22, SRMR = 0.18; $\Delta\chi^2$ = 1613.64, df = 6, p < 0.001). The factor loadings for all the indicators of the best-fitting measurement model were statistically significant (range λ = 0.69–0.88; p < 0.001).

5.3.2. Descriptive statistics

Table 2 reports the means, standard deviations, and correlations for all of the variables used in this study. The table shows that calling is positively correlated with PPD (r = 0.28, p < 0.001) and with career inflexibility (r = 0.24, p < 0.01). However, there is no correlation between calling and employability (r = −0.03, p = 0.447) and between PPD and career inflexibility (r = −0.06, p = 0.142).

Table 2
Means, standard deviations, and correlations for Study 2.

Variable	M	SD	1	2	3	4
1. Calling	3.27	0.95	(0.81)			
2. PPD	3.52	0.86	0.28**	(0.80)		
3. Career inflexibility	2.62	0.83	0.24**	− 0.06	(0.87)	
4. Employability	3.53	0.90	− 0.03	0.22**	− 0.29**	(0.80)

Note. N = 650; Numbers in parentheses are reliability coefficients. PPD = proactive professional development.
** $p < 0.01$.

5.3.3. Hypothesis testing

Before we turned to hypothesis testing, we checked the fit of the complete mediating model with PPD and career inflexibility as two full mediators. The SEM results indicated that this full mediation model had a reasonable fit ($\chi^2 = 112.16$, $df = 50$, $p < 0.001$, CFI = 0.98, TLI = 0.97, RMSEA = 0.04, SRMR = 0.05). The partial mediation model ($\chi^2 = 111.78$, $df = 49$, $p < 0.001$, CFI = 0.98, TLI = 0.97, RMSEA = 0.04, SRMR = 0.05) to which we compared the full mediation model did not show a significantly better fit ($\Delta\chi^2 = 0.38$, $df = 1$, $p = 0.538$). Thus, we proceeded with testing the hypotheses using the more parsimonious full mediation model (see Fig. 3).

Hypotheses 1–3 from Study 1 and Hypotheses 4–5 from Study 2 together propose that calling relates indirectly to employability through PPD on the one hand and career inflexibility on the other hand. The SEM results indicated that calling was not significantly associated with employability ($\gamma = -0.04$, $p = 0.346$), similar to Study 1. Thus, Hypothesis 1 was not supported. However, calling was positively and significantly associated with PPD ($\gamma = 0.32$, $p < 0.001$), which in turn was positively associated with employability ($\beta = 0.25$, $p < 0.001$). Furthermore, the results showed that calling was positively associated with career inflexibility ($\gamma = 0.27$, $p < 0.001$), which in turn was negatively associated with employability ($\beta = -0.36$, $p < 0.001$). Thus, calling was indirectly related to employability both via PPD (*indirect effect* = 0.07, $p < 0.001$, bootstrap 5000 samples, 95% CI [0.038; 0.115]) and via career inflexibility (*indirect effect* = − 0.09, $p < 0.001$, bootstrap 5000 samples, 95% CI [− 0.133; − 0.053]), suggesting that indirect-only mediation occurs (Zhao, Lynch, & Chen, 2010). Consequently, our results supported Hypotheses 2–5.

5.4. Discussion of Study 2

Study 2 aimed to replicate the findings of Study 1. The results reveal that calling positively relates to employability through individuals' engagement in PPD. However, these results also show that calling negatively relates to employability through career inflexibility. Together, these paths shed light on the unexpected findings reported in Study 1. All in all, findings from Study 2 suggest the double-edged nature of the relation between calling and employability.

6. General discussion

To better understand the relationship between calling and employability, we examined how calling relates to employability through two studies. We drew on Hall and Chandler's (2005) calling theory of career success, the self-regulation literature (Lord et al., 2010) and previous research findings on the career-related benefits of calling (e.g., Dobrow & Tosti-Kharas, 2011; Hirschi & Hermann, 2013) to argue for positive associations between calling and employability and the mediating effect of PPD in this relationship. Across the two studies, calling was not related to employability, but it was related to PPD. In turn, PPD fully mediated the

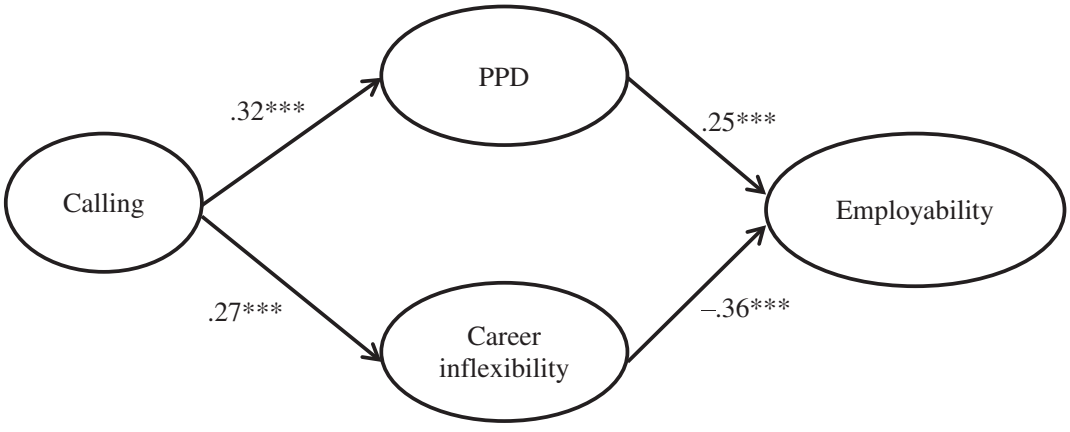

Fig. 3. Final mediation model for Study 2.
*** $p < 0.001$. PPD = proactive professional development. All coefficients are standardized estimates.

relationship between calling and employability. Accounting for PPD as the mediator in the calling-employability relationship in Study 1 revealed the presence of a negative suppressing effect in the relationship, demonstrating that calling also had a direct negative relationship with employability (i.e., its personal flexibility dimension). Study 2 further explained this finding by revealing that calling relates positively to career inflexibility, which, in turn, negatively relates to employability. In this way, the findings suggest that the indirect effect of calling on employability is positive when calling relates to employability through PPD and negative when calling relates to employability through career inflexibility.

6.1. Theoretical implications

This study contributes to the literature on calling in several ways. First, the results advance research on the career-related outcomes associated with calling (Duffy & Dik, 2013; Hirschi, 2011). In particular, we enrich our understanding of how and through which mechanisms calling relates to employability. Our findings support Hall and Chandler's (2005) calling theory of career success and previous research findings by showing that calling positively relates to individuals' engagement in learning and competence development (e.g., Duffy et al., 2014; Hirschi & Hermann, 2013), which, in turn, positively relates to employability (e.g., De Vos et al., 2011; Van der Heijde & Van der Heijden, 2006). In so doing, we respond to the need for a better understanding of how calling relates to career-related behavioral outcomes (Duffy & Dik, 2013; Elangovan et al., 2010).

At the same time, our results reveal that calling can also negatively relate to employability because of its association with higher career inflexibility. In this way, the results concur with the self-regulation literature, which argues for the importance of the adaptive self-regulation of unattainable goals (Wrosch et al., 2003). Furthermore, they support prior studies arguing for the possibilities of unhealthy and rigid calling pursuits (Cardador & Caza, 2012; Dobrow & Tosti-Kharas, 2012; Fraher & Gabriel, 2014), which may be associated with lower employability. Our findings are also in line with the study of Hirschi (2011), who suggested that some individuals who view their career as a calling have comparatively negative views about themselves. Thus, these individuals may perceive themselves as being less employable (Fugate et al., 2004; Van der Heijde & Van der Heijden, 2006).

The negative calling-employability relationship that we found, contradicts the study of young adults (18–25 years) conducted by Praskova et al. (2015a), which showed that calling has both direct and indirect positive relationships with employability. In that study, the authors operationalized calling as a salient career goal that is meaningful and purposeful that young adults set and pursue to find their calling. Thus, the young adults studied by the authors were at the exploration stage of their career development (Super, 1990), meaning that they were still searching for and experimenting with their career choices. Young adults who are still working toward finding their calling and searching for a way to pursue it are likely to be more optimistic about the realization of their career dreams (Twenge, 2006, as cited in Berkelaar & Buzzanell, 2015), feeling overconfident about the availability of employment opportunities for them. In this way, the findings of Praskova et al. (2015a) may be relevant only for young adults, while our findings may be generalizable to more age-diverse populations. Thus, the relationship between calling and employability is complex and requires further research.

Second, we extend the limited but growing research that acknowledges a “dark side” of calling (e.g., Berg et al., 2010; Dobrow & Tosti-Kharas, 2012; Gazica & Spector, 2015) and respond to Duffy and Dik's (2013) call for more research of this nature by showing that calling may also negatively relate to employability. By revealing that along with this dark side, there is a positive side of calling in terms of how it relates to employability, our findings specifically contribute to research arguing that calling is a double-edged sword (e.g., Berkelaar & Buzzanell, 2015; Bunderson & Thompson, 2009; Duffy et al., 2016).

The findings suggest a need for future research on the conditions under which calling positively or negatively relates to important career- and work-related outcomes. For example, distinguishing between the presence of a calling and living out a calling (Duffy et al., 2012) might be an important future research avenue. Prior research suggests that the inability to live out a calling has negative consequences for an individual's well-being (Berg et al., 2010; Duffy et al., 2016) and that having an “unanswered calling” could be even worse than not having a calling at all (Gazica & Spector, 2015). Furthermore, scholars should study factors that might buffer the negative consequences of calling for work- and career-related outcomes. For example, individuals who have a calling toward a certain activity (e.g., drawing, teaching, etc.) rather than toward a particular profession (e.g., doctor, lawyer, etc.) might be less fixed to a certain job or organization, seeing more opportunities for pursuing their calling in various jobs and organizations.

6.2. Limitations and future research directions

This study has several limitations that must be acknowledged. First, although the proposed mediation model is based on existing theories (Hall & Chandler, 2005; Wrosch et al., 2003), our data were cross-sectional in both studies, thus limiting conclusions of causal inferences. We attempted to minimize this limitation by testing the main hypotheses in different settings and using different calling and employability scales. We also tested alternative models which did not have a better fit than our hypothesized model. For the sake of saving space, we do not present a detailed analysis of the alternative models here; this analysis can be obtained from the first author upon request. Longitudinal research is required to explore the causal order in the calling-employability relationship.

Second, our data represented the respondents' self-perceptions. To detect potential common method bias that the self-reported and cross-sectional nature of the data could have caused, we performed Harman's single-factor test (Harman, 1976; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) in both studies. In Study 1, we also conducted Lindell and Whitney's (2001) marker variable (MV) analysis. We used organizational flexibility ($\alpha = 0.86$) as an MV, measured with the following three items: “I work in a flexible work environment”, “Every day I arrive at my office, I have to search for a desk”, and “I do not have a fixed workplace”. Although the results of the CMV bias tests suggested that we should not be concerned with this issue in this study, we encourage future research to

gather objective data on employability and to use supervisor assessments of employability.

Third, the studies did not account for potentially important context-dependent factors that might have influenced the findings. For example, previous research has shown that perceptions of organizational support for competency development enhance employability (De Vos et al., 2011) and that perceptions of the presence of a more career-oriented learning environment in an organization diminish the association of calling with the development of professional competence (Guo et al., 2014). Future studies should explore the relationship between calling and employability, while also accounting for context-dependent variables to examine the unique relationship between calling and employability.

6.3. Practical implications

Given the growing interest in pursuing meaningful work and finding a calling, this research has important implications for individuals, counseling practitioners, and organizations. By demonstrating that experiencing a calling might relate both positively and negatively to employability, we hope to draw attention to the importance of approaching the process of searching for and enacting a calling with caution. When searching for a calling, it might be important for individuals to experiment with diverse career-related images of the self and to develop career adaptability competencies (Savickas, 2005). When enacting a calling, individuals need to work on enabling a healthy pursuit of a calling. This could be achieved by recognizing situations of becoming obsessed with a calling or working under exploitative work conditions (e.g., Bunderson & Thompson, 2009). Career counselors and career development professionals within organizations can play an important role in nurturing ways in which calling can add to individuals' careers (e.g., providing training, creating and supporting learning and development opportunities, etc.). They can also play an important role in preventing the unhealthy pursuit of a calling (e.g., exposing individuals to alternative jobs and career options in which their expertise can be applied). For example, career counselors and career development professionals could implement career interventions that increase participants' career adaptability (e.g., Nota, Santilli, & Soresi, 2016) and career management preparedness (Vuori, Toppinen-Tanner, & Mutanen, 2012).

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References

Arbuckle, J. L. (2005). *Amos 6.0 user's guide.* Chicago, IL: SPSS Inc.
Arthur, M. B., Khapova, S. N., & Richardson, J. (2017). *An intelligent career: Taking ownership of your work and your life.* New York, NY: Oxford University Press.
Berg, J. M., Grant, A. M., & Johnson, V. (2010). When callings are calling: Crafting work and leisure in pursuit of unanswered occupational callings. *Organization Science, 21*, 973–994.
Berkelaar, B. L., & Buzzanell, P. M. (2015). Bait and switch or double-edged sword? The (sometimes) failed promises of calling. *Human Relations; Studies Towards the Integration of the Social Sciences, 68*(1), 157–178.
Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.). *Testing structural equation models* (pp. 136–162). Beverly Hills, CA: Sage Publications, Inc.
Bunderson, J. S., & Thompson, J. A. (2009). The call of the wild: Zookeepers, callings, and the double-edged sword of deeply meaningful work. *Administrative Science Quarterly, 54*(1), 32–57.
Cardador, M. T., & Caza, B. B. (2012). Relational and identity perspectives on healthy versus unhealthy pursuit of callings. *Journal of Career Assessment, 20*(3), 338–353.
Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review, 97*, 19–35.
Chen, F., Bollen, K. A., Paxton, P., Curran, P. J., & Kirby, J. B. (2001). Improper solutions in structural equation models: Causes, consequences, and strategies. *Sociological Methods & Research, 29*(4), 468–508.
Clinton, M. E., Conway, N., & Sturges, J. (2017). "It's tough hanging-up a call": The relationships between calling and work hours, psychological detachment, sleep quality, and morning vigor. *Journal of Occupational Health Psychology, 22*(1), 28–39.
De Cuyper, N., Raeder, S., Van der Heijden, B. I. J. M., & Wittekind, A. (2012). The association between workers' employability and burnout in a reorganization context: Longitudinal evidence building upon the conservation of resources theory. *Journal of Occupational Health Psychology, 17*(2), 162–174.
De Vos, A., De Hauw, S., & Van der Heijden, B. I. J. M. (2011). Competency development and career success: The mediating role of employability. *Journal of Vocational Behavior, 79*(2), 438–447.
Dik, B. J., & Duffy, R. D. (2009). Calling and vocation at work definitions and prospects for research and practice. *The Counseling Psychologist, 37*(3), 424–450.
Dik, B. J., Eldridge, B. M., Steger, M. F., & Duffy, R. D. (2012). Development and validation of the calling and vocation questionnaire (CVQ) and brief calling scale (BCS). *Journal of Career Assessment, 20*(3), 242–263.
Dobrow, S. R., & Tosti-Kharas, J. (2011). Calling: The development of a scale measure. *Personnel Psychology, 64*(4), 1001–1049.
Dobrow, S. R., & Tosti-Kharas, J. (2012). Listen to your heart? Calling and receptivity to career advice. *Journal of Career Assessment, 20*(3), 264–280.
Douglass, R. P., & Duffy, R. D. (2015). Calling and career adaptability among undergraduate students. *Journal of Vocational Behavior, 86*, 58–65.
Duffy, R. D., Bott, E. M., Allan, B. A., Torrey, C. L., & Dik, B. J. (2012). Perceiving a calling, living a calling, and job satisfaction: Testing a moderated, multiple mediator model. *Journal of Counseling Psychology, 59*(1), 50–59.
Duffy, R. D., & Dik, B. J. (2013). Research on calling: What have we learned and where are we going? *Journal of Vocational Behavior, 83*(3), 428–436.
Duffy, R. D., Dik, B. J., & Steger, M. F. (2011). Calling and work-related outcomes: Career commitment as a mediator. *Journal of Vocational Behavior, 78*(2), 210–218.
Duffy, R. D., Douglass, R. P., Autin, K. L., & Allan, B. A. (2014). Examining predictors and outcomes of a career calling among undergraduate students. *Journal of Vocational Behavior, 85*, 309–318.
Duffy, R. D., Douglass, R. P., Autin, K. L., England, J., & Dik, B. J. (2016). Does the dark side of a calling exist? Examining potential negative effects. *The Journal of Positive Psychology, 11*(6), 634–646.
Elangovan, A. R., Pinder, C. C., & McLean, M. (2010). Callings and organizational behavior. *Journal of Vocational Behavior, 76*, 428–440.
Fraher, A. L., & Gabriel, Y. (2014). Dreaming of flying when grounded: Occupational identity and occupational fantasies of furloughed airline pilots. *Journal of Management Studies, 51*(6), 926–951.
Fugate, M., Kinicki, A. J., & Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior, 65*,

14–38.
Gazica, M. W., & Spector, P. E. (2015). A comparison of individuals with unanswered callings to those with no calling at all. *Journal of Vocational Behavior, 91*, 1–10.
Guo, Y., Guan, Y., Yang, X., Xu, J., Zhou, X., She, Z., ... Fu, M. (2014). Career adaptability, calling and the professional competence of social work students in China: A career construction perspective. *Journal of Vocational Behavior, 85*(3), 394–402.
Hall, D. T., & Chandler, D. E. (2005). Psychological success: When the career is calling. *Journal of Organizational Behavior, 26*(2), 155–176.
Harman, H. H. (1976). *Modern factor analysis.* Chicago: University of Chicago Press.
Hirschi, A. (2011). Callings in career: A typological approach to essential and optional components. *Journal of Vocational Behavior, 79*(1), 60–73.
Hirschi, A. (2012). Callings and work engagement: Moderated mediation model of work meaningfulness, occupational identity, and occupational self-efficacy. *Journal of Counseling Psychology, 59*(3), 479–485.
Hirschi, A., & Hermann, A. (2013). Calling and career preparation: Investigating developmental patterns and temporal precedence. *Journal of Vocational Behavior, 83*(1), 51–60.
Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indices in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*(1), 1–55.
Hundley, G. (2001). Why and when are the self-employed more satisfied with their work? *Industrial Relations, 40*, 293–316.
Inkson, K., & King, Z. (2010). Contested terrain in careers: A psychological contract model. *Human Relations; Studies Towards the Integration of the Social Sciences, 64*(1), 37–57.
James, L. R., Mulaik, S. A., & Brett, J. M. (2006). A tale of two methods. *Organizational Research Methods, 9*(2), 233–244.
Janssens, M., Sels, L., & Van den Brande, I. (2003). Multiple types of psychological contracts: A six-cluster solution. *Human Relations; Studies Towards the Integration of the Social Sciences, 56*(11), 1349–1378.
Kline, R. B. (2016). *Principles and practice of structural equation modeling (4th ed.).* New York, NY: Guilford Press.
Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology, 86*(1), 114–121.
Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice Hall.
Lord, R. G., Diefendorff, J. M., Schmidt, A. M., & Hall, R. J. (2010). Self-regulation at work. *Annual Review of Psychology, 61*, 543–568.
MacKinnon, D. P., Krull, J. L., & Lockwood, C. M. (2000). Equivalence of the mediation, confounding and suppression effect. *Prevention Science, 1*(4), 173–181.
Markus, H. R., & Nurius, P. (1986). Possible selves. *American Psychologist, 41*(9), 954–969.
Mathieu, J. E., & Taylor, S. R. (2006). Clarifying conditions and decision points for mediational type inferences in organizational behavior. *Journal of Organizational Behavior, 27*(8), 1031–1056.
Negru-Subtirica, O., Pop, E. I., & Crocetti, E. (2015). Developmental trajectories and reciprocal associations between career adaptability and vocational identity: A three-wave longitudinal study with adolescents. *Journal of Vocational Behavior, 88*, 131–142.
Nevitt, J., & Hancock, G. R. (2001). Performance of bootstrapping approaches to model test statistics and parameter standard error estimation in structural equation modeling. *Structural Equation Modeling: A Multidisciplinary Journal, 8*, 353–377.
Newport, C. (2012). *So good they can't ignore you. Why skills trump passion in the quest for work you love.* New York: Business Plus.
Nota, L., Santilli, S., & Soresi, S. (2016). A life-design-based online career intervention for early adolescents: Description and initial analysis. *The Career Development Quarterly, 64*, 4–19.
Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903.
Porfeli, E. J., Lee, B., Vondracek, F. W., & Weigold, I. K. (2011). A multi-dimensional measure of vocational identity status. *Journal of Adolescence, 34*(5), 853–871.
Praskova, A., Creed, P. A., & Hood, M. (2015a). Self-regulatory processes mediating between career calling and perceived employability and life satisfaction in emerging adults. *Journal of Career Development, 42*(2), 86–101.
Praskova, A., Creed, P. A., & Hood, M. (2015b). Career identity and the complex mediating relationships between career preparatory actions and career progress markers. *Journal of Vocational Behavior, 87*, 145–153.
Pratt, M. G., & Ashforth, B. E. (2003). Fostering meaningfulness in working and at work. In K. S. Cameron, J. E. Dutton, & R. E. Quinn (Eds.). *Positive organizational scholarship* (pp. 309–327). San Francisco: Berrett-Koehler Publishers, Inc.
Rothwell, A., Jewell, S., & Hardie, M. (2009). Self-perceived employability: Investigating the responses of post-graduate students. *Journal of Vocational Behavior, 75*, 152–161.
Savickas, M. L. (2005). The theory and practice of career construction. In S. D. Brown, & R. W. Lent (Eds.). *Career development and counseling* (pp. 42–70). Hoboken, New Jersey: John Wiley & Sons, Inc.
Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior, 80*(3), 661–673.
Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods, 7*(4), 422–445.
Super, D. E. (1990). A life-span, life-space approach to career development. In D. Brown, & L. Brooks (Eds.). *Career choice and development: Applying contemporary theories to practice* (pp. 197–261). San Francisco, CA: Jossey-Bass.
Tims, M., Bakker, A. B., & Derks, D. (2012). The development and validation of the Job Crafting Scale. *Journal of Vocational Behavior, 80*, 173–186.
Tims, M., Bakker, A. B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of Occupational Health Psychology, 18*(2), 230–240.
Twenge, J. M. (2006). *Generation me: Why today's young Americans are more confident, assertive, entitled—And more miserable than ever before.* New York, NY: Free Press.
Van den Berg, P. T., & Van der Velde, M. E. G. (2005). Relationships of functional flexibility with individual and work factors. *Journal of Business and Psychology, 20*, 111–129.
Van der Heijde, C. M., & Van der Heijden, B. I. J. M. (2006). A competence-based and multidimensional operationalization and measurement of employability. *Human Resource Management, 45*(3), 449–476.
Van der Heijden, B. I. J. M., Boon, J., Van der Klink, M., & Meijs, E. (2009). Employability enhancement through formal and informal learning: An empirical study among Dutch non-academic university staff members. *International Journal of Training and Development, 13*(1), 19–37.
Vanhercke, D., De Cuyper, N., Peeters, E., & De Witte, H. (2014). Defining perceived employability: A psychological approach. *Personnel Review, 43*, 592–605.
Vuori, J., Toppinen-Tanner, S., & Mutanen, P. (2012). Effects of resource-building group intervention on career management and mental health in work organizations: Randomized controlled field trial. *Journal of Applied Psychology, 97*(2), 273–286.
Waters, L., Briscoe, J. P., Hall, D. T., & Wang, L. (2014). Protean career attitudes during unemployment and reemployment: A longitudinal perspective. *Journal of Vocational Behavior, 84*(3), 405–419.
Wittekind, A., Raeder, S., & Grote, G. (2010). A longitudinal study of determinants of perceived employability. *Journal of Organizational Behavior, 31*, 566–586.
Wrosch, C., Scheier, M. F., Miller, G. E., Schulz, R., & Carver, C. S. (2003). Adaptive self-regulation of unattainable goals: Goal disengagement, goal reengagement, and subjective well-being. *Personality and Social Psychology Bulletin, 29*, 1494–1508.
Xie, B., Xia, M., Xin, X., & Zhou, W. (2016). Linking calling to work engagement and subjective career success: The perspective of career construction theory. *Journal of Vocational Behavior, 94*, 70–78.
Zhao, X., Lynch, J. G., Jr., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research, 37*, 197–206.